

Work Order ID 138691

Monday, November 09, 2015 10:57:15 AM

138691

TULMAR

Page 1

Item ID: PB67-43001-69 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: 90 Degree Cover Plate
Start Date: 11/9/2015 Start Qty: 16.00 ***16*** Cust Item ID:
Required Date: 11/27/2015 Req'd Qty: 16.00 ***16*** Customer:
Reference:

Approvals: Process Plan: JMF Date: 15-11-09 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
B67-43001-69	Rev D								
100	FLOW WATER JET	0.00							
100									
Waterjet	Memo	0.02							
FLOW CNC Waterjet	1-Cut as per Dwg B67-43001 Dwg Rev: <u>D</u> Prog Rev: <u>D</u>								
	<u>M</u> ^{45°} ****grain direction along 9.144"**** 2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110									
QC	Memo	0.00							
Quality Control									
120	QC8- Inspect parts - second check	0.00							
120									
QC	Memo	0.01							
Quality Control									

DAS
38
9-89

NOV 27 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

DQA: dat Date: 16.03.01

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: RGA Date: 16/02/2016Work Order update only ☐

Work Order: <u>138 691</u> Part No. <u>PB 67-43000-1.9</u> NCR No. <u>16-5625</u>		DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☒ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging Supplier ☐ Engineering ☒ Quality ☐ Other ☐			
Date: <u>DEC 01 2015</u>		Step #: <u>130</u>		QTY Effective: <u>1</u>		MRB (QSI042) Approval <u>PD 15-12-03</u>	
Description Work Order Deviation				Disposition			
1 part is scrap because Dwg went up date PAR: It was out of tolerance				Scrap & destroy No replace Dwg to be revise on PAR.14-333			
				DAS Completed By <u>30 DEC 01 2015</u> 9-89			
				Lead hand / Supervisor Approval Verification <u>30 DEC 01 2015</u> 9-89			
				QC / QA Coordinator Approval <u>DEC 03 2015</u> 9-89			
Root Cause Environment ☐ Design ☒ Doc/Data ☒ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☒ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☒ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER: ☒							

Work Order ID 138691

Monday, November 09, 2015 10:57:15 AM

138691

Page 3

Item ID: PB67-43001-69

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: 90 Degree Cover Plate

Start Date: 11/9/2015 Start Qty: 16.00

16

Cust Item ID:

Required Date: 11/27/2015 Req'd Qty: 16.00

16

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

0.00

DAS
30
9-89

15

FF

DEC 10 2015

160

Small Fab

Small Fab

Memo

0.00

Small Fab

1- grind weld flush

170

0.00

DAS
9
9-89***170***

QC

QC10- Inspect visual per QSI004- ground welds

Memo

0.00

Quality Control

(15)

15-12-11

180

0.00

DAS
9
9-89***180***

QC

QC5- Inspect part completeness to step on W/O

Memo

0.01

Quality Control

(15)

15-12-11

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
OTHER : _____											

Work Order ID 138691

138691

Page 4

Monday, November 09, 2015 10:57:15 AM

Item ID: PB67-43001-69 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: 90 Degree Cover Plate
 Start Date: 11/9/2015 Start Qty: 16.00 ***16*** Cust Item ID:
 Required Date: 11/27/2015 Req'd Qty: 16.00 ***16*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 <i>Memo</i> <i>N/A 15-12-11</i>	0.00 0.02							
200 *200* Powdercoat Powder Coating	Green Sandtex(Ref:4.3.5.8) per QSI005 4.3 <i>m 111277.</i> <i>Memo</i> START TIME: <i>10:55</i> OVEN TEMPERATURE: <i>350°</i> FINISH TIME: <i>11:25</i>	0.00 0.01							<i>15</i> <i>15-12-15</i> <i>DAS</i> <i>34</i> <i>9-89</i>
210 *210* QC Quality Control	QC3- Inspect Part Finish <i>Memo</i>	0.00 0.00							<i>(15)</i> <i>15-12-16</i> <i>DAS</i> <i>9</i> <i>9-89</i>

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																																				
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																																				
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																																				
Large Fab ☐	Composite ☐	Supplier ☐																																																																					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																																
Description Work Order Deviation				Disposition																																																																			
Root Cause <table style="width:100%; border: none;"> <tr><td>Environment ☐</td><td>No Re-verification ☐</td></tr> <tr><td>Design ☐</td><td>Operator ☐</td></tr> <tr><td>Doc/Data ☐</td><td>Offset/Setup ☐</td></tr> <tr><td>Equip/Tooling ☐</td><td>Supplier ☐</td></tr> <tr><td>Handling/Pre ☐</td><td>Training ☐</td></tr> <tr><td>Material ☐</td><td>Use for Testing ☐</td></tr> <tr><td>Internal Transport ☐</td><td>Poor Information ☐</td></tr> <tr><td>Tribal Knowledge ☐</td><td>Rushing ☐</td></tr> <tr><td>LOA ☐</td><td>Product Improvement ☐</td></tr> <tr><td>Substation ☐</td><td>Process Improvement ☐</td></tr> <tr><td>Past Expiry Date ☐</td><td>Manufacturing Process ☐</td></tr> <tr><td>Misidentified ☐</td><td>Past Due ☐</td></tr> </table>		Environment ☐	No Re-verification ☐	Design ☐	Operator ☐	Doc/Data ☐	Offset/Setup ☐	Equip/Tooling ☐	Supplier ☐	Handling/Pre ☐	Training ☐	Material ☐	Use for Testing ☐	Internal Transport ☐	Poor Information ☐	Tribal Knowledge ☐	Rushing ☐	LOA ☐	Product Improvement ☐	Substation ☐	Process Improvement ☐	Past Expiry Date ☐	Manufacturing Process ☐	Misidentified ☐	Past Due ☐	FAULT CATEGORY <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Pressure/Forced ☐</td> <td style="width:15%;">Temperature/Cure ☐</td> <td style="width:15%;">Power Loss/Surge ☐</td> <td style="width:15%;">Positioned Wrong ☐</td> </tr> <tr> <td>Bending ☐</td> <td>Set-up ☐</td> <td>Folio/Program ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>Centre Not Concentric ☐</td> <td>BOM/Route ☐</td> <td>Grain ☐</td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Cracks ☐</td> <td>Broken/Damage/Defect ☐</td> <td>Weld ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Crimp/Kink/Ripple/Wave ☐</td> <td>Inspection Incomplete/Unqualified ☐</td> <td>Wrong Stock Pulled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Cuffs ☐</td> <td>Contamination ☐</td> <td>Out of Sequence ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Crushing ☐</td> <td>Countersink ☐</td> <td>Off-set ☐</td> <td>Drawing ☐</td> </tr> <tr> <td>Heat Treat ☐</td> <td>Cut Too Short ☐</td> <td>Mislabeled ☐</td> <td>Finish ☐</td> </tr> <tr> <td>Wave/Twist in Tube ☐</td> <td>Instructions Incomplete/Unclear ☐</td> <td>Fit/Function ☐</td> <td>Misread ☐</td> </tr> <tr> <td>Marks/Chatter ☐</td> <td>Drill Holes ☐</td> <td>Misaligned/off center ☐</td> <td>Turning Sequence ☐</td> </tr> </table>						Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Environment ☐	No Re-verification ☐																																																																						
Design ☐	Operator ☐																																																																						
Doc/Data ☐	Offset/Setup ☐																																																																						
Equip/Tooling ☐	Supplier ☐																																																																						
Handling/Pre ☐	Training ☐																																																																						
Material ☐	Use for Testing ☐																																																																						
Internal Transport ☐	Poor Information ☐																																																																						
Tribal Knowledge ☐	Rushing ☐																																																																						
LOA ☐	Product Improvement ☐																																																																						
Substation ☐	Process Improvement ☐																																																																						
Past Expiry Date ☐	Manufacturing Process ☐																																																																						
Misidentified ☐	Past Due ☐																																																																						
Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																																																																				
Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																																																																				
Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																																																																				
Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																																																																				
Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																																																																				
Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																				
Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																																																																				
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																				
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																				
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																				
		OTHER : ☐																																																																					

Work Order ID 138691***138691***

Page 6

Monday, November 09, 2015 10:57:15 AM

Item ID: PB67-43001-69

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: 90 Degree Cover Plate

Start Date: 11/9/2015 Start Qty: 16.00

16

Cust Item ID:

Required Date: 11/27/2015 Req'd Qty: 16.00

16

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

250

Identify as per dwg & Stock Location: M222

0.00

250

Packaging

Memo

0.00

Packaging

15DAS
6
9-89

FEB 26 2016

260

QC21- Final Inspection - Work Order Release

0.00

260

QC

Memo

0.03

Quality Control

MCS

FEB 26 2016

FEB 26 2016

MCS

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
OTHER : ☐											

Picklist Print

Monday, November 09, 2015 10:57:15 AM

Page 1

Work Order ID: 138691

138691

Parent Item: PB67-43001-69

PR67-43001-69

Parent Item Name: 90 Degree Cover Plate

Start Date: 11/9/2015

Required Date: 11/27/2015

Start Qty: 16.00

Required Qty: 16.00

Comments: IPP Rev:A 08-06-20 new issue DD verified by:ec
10.10.04 per revD dwg EC verified by:DD

IPP Rev B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.032		Purchased		No		100	sf	192.8000	1.3556	22.83116			

M6061T6S 032

6061-T6 Sheet 0.032"

015/11/26

Location

Loc Qty

Loc Code

MAT021

192.8

m131352

53.6

m132772

139.2

30

DQA: _____ Date: _____



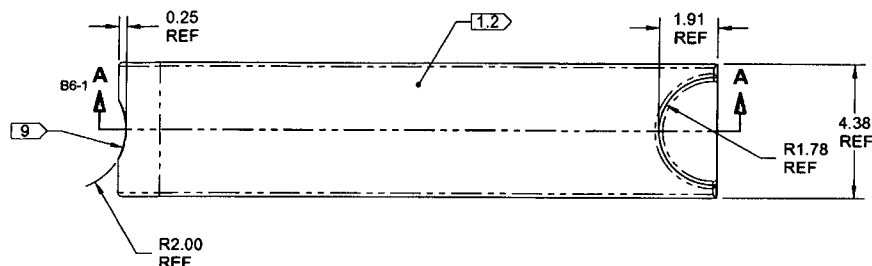
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

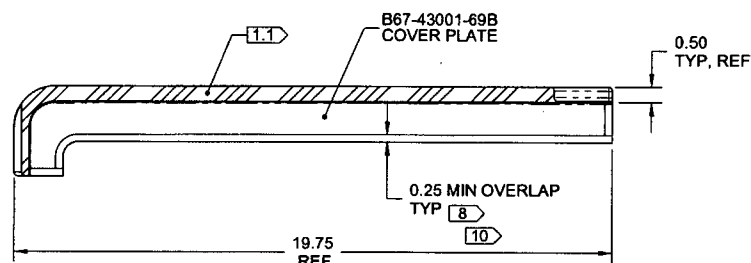
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

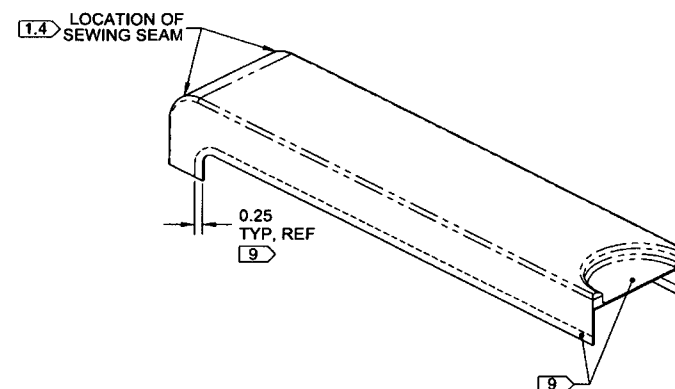
ITEM	QTY -69	P/N	DESCRIPTION
1	X	B67-43001-69	90° COVER PLATE ASSEMBLY
2	1	B67-43001-69B	90° COVER PLATE
3	A/R	1673-001	SEE NOTE 1.1
4	A/R	1495	SEE NOTE 1.2
5	A/R	LA4009	SEE NOTE 1.3
6	A/R	2530	SEE NOTE 1.4



B67-43001-69 COVER PLATE ASSEMBLY



SECTION A-A 08-1



RELEASED
2010-09-16

NOTES:

- 1) MATERIAL:
 - 1.1) FOAM: ETHYLENE PROPYLENE NEOPRENE SBR CLOSED-CELL, FLAME RETARDANT, 0.50 THICK, PER ASTM D1056 2A2, SERVICE TEMP -40°F TO +200°F, COLOUR: BLACK REF. TULMAR P/N 1637-001
 - 1.2) FABRIC: 100% 420 DENIER NYLON, MIN THREAD COUNT 35X35, POLYURETHANE COATED ONE SIDE, COLOUR: BLACK REF. TULMAR P/N 1495
 - 1.3) ADHESIVE: URETHANE WITH CATALYST, TWO PART, CLIFTON LA4009
 - 1.4) THREAD: NYLON, BLACK, V-T-295 TYPE 2, CLASS A, SIZE F, 8-10 STITCHES PER INCH REF. TULMAR P/N 2530
- 2) FINISH: BOND NEOPRENE TO COVER PLATE USING ADHESIVE. COVER WITH DENIER AS SHOWN.
- 3) TOLERANCES: PER TABLE 1 (ZN A3-1) UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.75 lbs REF
- 8) DENIER NYLON TO BE BONDED ALL AROUND INNER SIDES OF PLATE
- 9) DENIER NYLON TO BE BONDED TO PLATE ON OUTER SIDES

TABLE 1 3

TOLERANCES ON FABRIC (PARTS AND ASSEMBLIES)
±1/8: DIMS <2
±1/4: DIMS 2 TO <10
±1/2: DIMS 10 TO <20
±5/8: DIMS 20 TO <40
±1.5%: DIMS EQUAL TO OR > 40

D	REVISED IAW TULMAR SAFETY SYSTEMS INC.'S MANUFACTURING PROCESS AND TOLERANCES ON FABRIC. REASON: SEE PAR#09-011.	MB	10.04.27
C	REDRAWN PREMIER AVIATION DRAWING IAW DART QSI 018 AND QSI 043: 4.38 WAS 4.25. FOR PREVIOUS REVISIONS, REFER TO SHEETS 8 AND 25 OF PREMIER AVIATION DRAWING No. B67-43001. REASON: SEE PAR#09-011.	MB	09.02.11
REV.	DESCRIPTION	BY	DATE
DESIGN	RW		
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.	N/A		
DATE	10.04.27		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. B67-43001-69 TITLE 90° COVER PLATE REV. D SHEET 1 OF 2 SCALE NTS COPYRIGHT © 1995 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

DQA: _____ Date: _____

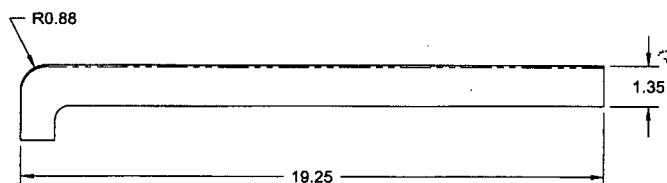
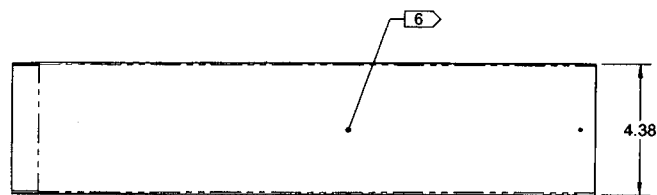


WORK ORDER NON-CONFORMANCE / UPDATE

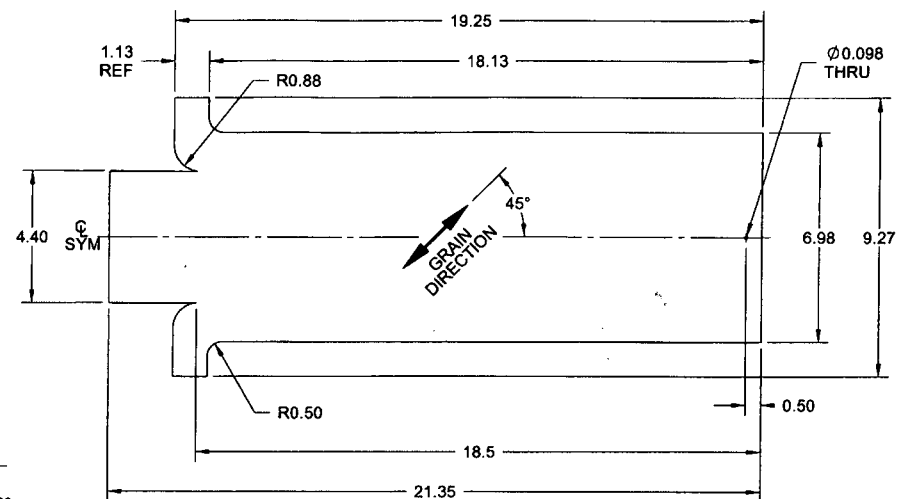
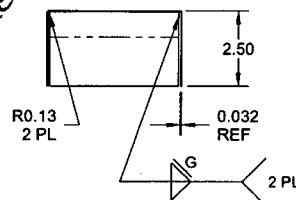
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							



B67-43001-69B BENDING DETAIL
(MAKE FROM B67-43001-69F)



B67-43001-69F FLAT PATTERN

NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET, 0.032 THICK
PER AMS-QQ-A-250/11 OR AMS 4025/4027
REF. DART SPEC. M6061T6S.032 OR ASTM B209
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GREEN SANDEX (4.3.5.8) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "B67-43001-69B" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.45 lbs

RELEASED
2010-09-16
WPD

DESIGN	RW	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. I
MFG. APPR.		B67-43001-69	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.	N/A	90° COVER PLATE	NTS
DATE	10.04.27	COPYRIGHT © 1995 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																																				
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																																				
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																																				
Large Fab ☐	Composite ☐	Supplier ☐																																																																					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																																
Description Work Order Deviation				Disposition																																																																			
Root Cause <table style="width:100%; border: none;"> <tr><td>Environment ☐</td><td>No Re-verification ☐</td></tr> <tr><td>Design ☐</td><td>Operator ☐</td></tr> <tr><td>Doc/Data ☐</td><td>Offset/Setup ☐</td></tr> <tr><td>Equip/Tooling ☐</td><td>Supplier ☐</td></tr> <tr><td>Handling/Pre ☐</td><td>Training ☐</td></tr> <tr><td>Material ☐</td><td>Use for Testing ☐</td></tr> <tr><td>Internal Transport ☐</td><td>Poor Information ☐</td></tr> <tr><td>Tribal Knowledge ☐</td><td>Rushing ☐</td></tr> <tr><td>LOA ☐</td><td>Product Improvement ☐</td></tr> <tr><td>Substation ☐</td><td>Process Improvement ☐</td></tr> <tr><td>Past Expiry Date ☐</td><td>Manufacturing Process ☐</td></tr> <tr><td>Misidentified ☐</td><td>Past Due ☐</td></tr> </table>		Environment ☐	No Re-verification ☐	Design ☐	Operator ☐	Doc/Data ☐	Offset/Setup ☐	Equip/Tooling ☐	Supplier ☐	Handling/Pre ☐	Training ☐	Material ☐	Use for Testing ☐	Internal Transport ☐	Poor Information ☐	Tribal Knowledge ☐	Rushing ☐	LOA ☐	Product Improvement ☐	Substation ☐	Process Improvement ☐	Past Expiry Date ☐	Manufacturing Process ☐	Misidentified ☐	Past Due ☐	FAULT CATEGORY <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Pressure/Forced ☐</td> <td style="width:15%;">Temperature/Cure ☐</td> <td style="width:15%;">Power Loss/Surge ☐</td> <td style="width:15%;">Positioned Wrong ☐</td> </tr> <tr> <td>Bending ☐</td> <td>Set-up ☐</td> <td>Folio/Program ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>Centre Not Concentric ☐</td> <td>BOM/Route ☐</td> <td>Grain ☐</td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Cracks ☐</td> <td>Broken/Damage/Defect ☐</td> <td>Weld ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Crimp/Kink/Ripple/Wave ☐</td> <td>Inspection Incomplete/Unqualified ☐</td> <td>Wrong Stock Pulled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Cuffs ☐</td> <td>Contamination ☐</td> <td>Out of Sequence ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Crushing ☐</td> <td>Countersink ☐</td> <td>Off-set ☐</td> <td>Drawing ☐</td> </tr> <tr> <td>Heat Treat ☐</td> <td>Cut Too Short ☐</td> <td>Mislabeled ☐</td> <td>Finish ☐</td> </tr> <tr> <td>Wave/Twist in Tube ☐</td> <td>Instructions Incomplete/Unclear ☐</td> <td>Fit/Function ☐</td> <td>Misread ☐</td> </tr> <tr> <td>Marks/Chatter ☐</td> <td>Drill Holes ☐</td> <td>Misaligned/off center ☐</td> <td>Turning Sequence ☐</td> </tr> </table>						Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Environment ☐	No Re-verification ☐																																																																						
Design ☐	Operator ☐																																																																						
Doc/Data ☐	Offset/Setup ☐																																																																						
Equip/Tooling ☐	Supplier ☐																																																																						
Handling/Pre ☐	Training ☐																																																																						
Material ☐	Use for Testing ☐																																																																						
Internal Transport ☐	Poor Information ☐																																																																						
Tribal Knowledge ☐	Rushing ☐																																																																						
LOA ☐	Product Improvement ☐																																																																						
Substation ☐	Process Improvement ☐																																																																						
Past Expiry Date ☐	Manufacturing Process ☐																																																																						
Misidentified ☐	Past Due ☐																																																																						
Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																																																																				
Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																																																																				
Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																																																																				
Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																																																																				
Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																																																																				
Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																				
Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																																																																				
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																				
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																				
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																				
		OTHER :																																																																					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
☐ OTHER : _____					



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO31110**

Purchase Order Date 1/22/2016

PO Print Date 1/28/2016

Page Number 2 of 4

Order From :
TULMAR SAFETY SYSTEMS
1123 CAMERON ST
HAWKESBURY, ON K6A 2B8
CA

VC-TUL001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 613 632 1282

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Buyer

Customer POID

Customer Tax # 10127-2607

Terms

Currency

FOB

Chantal Lavoie

Net 30

CAD

FCA - (Free Carrier)

3	138696	PB67-43001-33 UPPER PAD ASSEMBLY	2/19/2016	4.00	\$82.50	\$330.00
			Yes			
			2/19/2016			

FOAM AND FABRIC
TULMAR P/N: 8421-107
INCLUDED MARK UPS AT REV.C +MU1

Line Total: **\$330.00**

4	138688	PB67-43001-85 D-PAD	2/19/2016	11.00	\$55.00	\$605.00
			Yes			
			2/19/2016			

FOAM AND FABRIC
TULMAR P/N: 8421-102
INCLUDED MARK UPS AT REV.D + MU
MISSING ON DART DWG. "TRANSFER DIAM 0.19 HOLE FROM WELDMENT TO FABRIC 2PL"

Line Total: **\$605.00**

5	138691	PB67-43001-69 90 DEG. COVER PLATE	2/19/2016	15.00	\$160.00	\$2,400.00
			Yes			
			2/19/2016			

FOAM AND FABRIC AS PER DWG PD67-43001-69 REV. D
TULMAR P/N: 8421-106

1612/24
SV

PO Instructions: SALES QUOTE NO. 16014,16058

Note:

1/28/2016

PACKING SLIP

TULMAR

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawkesbury, ON K6A 2B8
Tel: 613-632-1282
Fax: 613-632-2030
GST R132478223
MID : XOTULSAF1123HAW
email: info@tulmar.com

Packing Slip No. Page

56789 2

Ship Date

2/23/2016

Bill To:

Dart Aerospace

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

Ship To:

Dart Aerospace

1270 Aberdeen Street
Tel: 613-632-9577
Hawkesbury, ON K6A 1K7
Canada

Order number	Sales order date	Account number	Loc	Account manager
33591	1/27/2016	CDART100	H	Francine Bigras
PO number	Ship via	Shipping Terms		
PO31110	Pick-Up	FOB HAWKESBURY		
Item No. Description	Quantity ordered	UOM	Qty Shipped/Returned	Quantity on back order
8421-106 Plate, Cover 90°, Ass'y Drawing No: B67-43001-69+MU DWG Rev: D+1	15.00	EA	15.00	✓ 16/2/24 SB
Lot no.: BATCH0000000010	15.00			
8421-107 Dart Blade Fold Kit - Pad #8 Drawing No: B67-43001-33+MU DWG Rev: C+1 Item 3	4.00	EA	4.00	
Lot no.: BATCH0000000008	4.00			

Certificate of Conformance

☒ See Certification Enclosed

I hereby certify that the items listed hereon have been inspected, and / or tested (as applicable), conform to all specifications and requirements detailed in the contract or purchase order. Objective evidence to support this statement is on file, and can be made available upon request.
If any questions or concerns, please contact QA Manager @ 613-632-1282 ext. 245.

Authorized Inspector

Sandra LaLiberte

Date:

FEB 23 2016



J. ENNIS FABRICS

June 10, 2015

Fax To: Tulmar Safety Systems
Fax: 613-632-2030
Attention: Sandra Nadeau

Certificate of Conformance

Re: PO 28594-00 for Oxford 7 black

The goods shipped on P/O 28594-00 are as per sampled goods. Specification as follows:
As per mill documentation:

Oxford 7 black is in compliance with the following standards:

Width: Product is 58 Inches Wide.

Roll Size: Average Roll Length is 75 Yards.

Weight: Product Weight is 6.79 Ounces per Sq.Yd. /Product Weight is 10.94 oz per Lin.Yd.

Content: 100% Nylon.

Coating: Product has a Polyurethane Coating (approximately 0.65 oz/ Sq.Yd. (18.5g/sq.yd.))

Denier: Yarn is 420 Denier.

Thread Count: Construction is 62 x 38 Threads per Square Inch

Protective Finish; Product is Water Repellent.

Hydro Resist: AATCC 127 (Suter): Average 800 mm

Piece # 111926200 Manufacture Date: 03/25/15, **Lot Number:** 444815

Sincerely;
J. Ennis Fabrics Ltd.

S, Nolan

Susan Nolan
Customer Service Specialist

C/c's used temply:
B67-43001-181 Rev.D
B67-43001-173 Rev.D
B67-43001-73THU Rev C+1
B67-43001-69THU Rev. D+1
B67-43001-33THU Rev. C+1

Louise Puliberto (cc.) Feb. 22/16

JUN 19 2015



TULMAR**Certificate of Conformance**

Tulmar P/N 1637-001	Description Foam, SBR/EPDM/CR blend, black, ASTM D1056 2a2, 1/2" thick, 42"x72", brittle temp of -40°F IAW ASTM D746, FMVSS 302	Dwg # N/A	Revision -	Qty 4
Tulmar PO # 27193-00	Line Item # 1	Supplier Name / Address Am Rubber & Foam Gaskets Inc. 2074 Steeles Ave. East Units 1 & 2, Brampton On L6T 4Z9	Supplier Packing Slip # 12190	

Supplier Declarations:

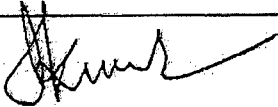
Hazardous Materials Acknowledgement	The items described below may contain, and their processing may have included, the following substances:	Hexavalent Chromium; Cadmium; Beryllium; Nickel; Mercury; Lead; Asbestos; Radioactive elements YES ☐ NO ☒
Country of Origin of Goods : CANADA		if YES, please complete the HazMat Acknowledgement form @ www.tulmar.com
Limited Shelf-Life	<u>Definition:</u> If material is consumed or transformed into final product before end of shelf-life there is no effect on final product.	These items have a limited Shelf-Life YES ☐ NO ☒
Expiry date	<u>Definition:</u> Date after which performance will no longer be as intended - expiration is transferred to the final product.	These items have an expiry date YES ☐ NO ☒

if YES, please complete the Time Expired - Shelf-Life questionnaire @ www.tulmar.com

Additional Information (MRS#, MRA#, limitations, etc...):

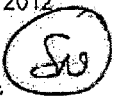
--

I hereby certify that the goods listed hereon have been inspected and/or tested, as applicable, and conform to all specifications and requirements detailed in the contract or purchase order and relevant quality clauses. Objective evidence to support this statement is on file and can be made available upon request. Should further information be required, please contact:

Signature 	Name Joseph Malhotra	Date (DD-MMM-YYYY) 02/01/2014
Title QA MANAGER	Email Joe.Malhotra@amrubber.ca	Phone # 647-501-1449

Form Revision 13 Aug 2012

TSS # 1637-001/05



TULMAR**Certificate of Conformance**

Tulmar P/N 2530	Description Threads, Nylon, Bush, A-A 56826, TYZ, CLA Size F, Quality Curve: G-0, Country of Origin: USA MS C0082	Dwg #	Revision	Qty 40 Sp
Tulmar PO # 27000-00	Line Item # 1	Supplier Name / Address CANSEW INC, 111 Chabanel West, Suite 101, Montreal, Que., H2N 1C9	Supplier Packing Slip # H66082	

Supplier Declarations:

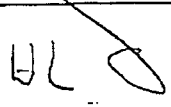
Hazardous Materials Acknowledgement	The items described below may contain, and their processing may have included, the following substances:	Hexavalent Chromium; Cadmium; Beryllium; Nickel; Mercury; Lead; Asbestos; Radioactive elements YES ☐ NO ☒
Country of Origin of Goods : USA		if YES, please complete the HazMat Acknowledgement form @ www.tulmar.com
Limited Shelf-Life	<u>Definition:</u> If material is consumed or transformed into final product before end of shelf-life there is no effect on final product.	These items have a limited Shelf-Life YES ☐ NO ☒
Expiry date	<u>Definition:</u> Date after which performance will no longer be as intended - expiration is transferred to the final product.	These items have an expiry date YES ☐ NO ☒

if YES, please complete the Time Expired - Shelf-Life questionnaire @ www.tulmar.com

Additional Information (MRS#, MRA#, limitations, etc...):

--

I hereby certify that the goods listed hereon have been inspected and/or tested, as applicable, and conform to all specifications and requirements detailed in the contract or purchase order and relevant quality clauses. Objective evidence to support this statement is on file and can be made available upon request. Should further information be required, please contact:

Signature 	Name Hershie Schachter	Date (DD-MMM-YY) 28-Jan-2014
Title President	Email hershie@cansew.ca	Phone # (514) 382-2807

Form Revision 13 Aug 2012

2530/53 (SW)



48 Burgess Place
Wayne, NJ 07470

Certificate Of Analysis

11/11/2015

Sales Order Number: 5927

Manufactured for
TULMAR SAFETY SYSTEMS

Customer Order Number: 29283

14172-C6.9A LA4009NOVOC, P/N 7122-001 14172-C6.9A LA4009NOVOC, UNLINED GALLON CAN

Lot# PNJ-1015-0252

Qty: 52 EA

Manufacture Date: 11/4/15

Expiration Date: 11/4/16

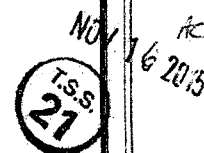
Test(s)	Results	Min	Max	
% Solids @275F for 30 minutes	14.3000	13.00	15.00	Percent
Brookfield, RVT, #3 Spindle, 20RPM, 78F	1,150.0000	800.00	1,500.00	Centipoise
Visual check for dry film color	pass	(CLEAR TO HAZY YELLOW) PASS/FAIL		

"The material supplied conforms to all applicable engineering drawing, specifications and PO requirements."

Dan Constantino

Daniel Constantino
Quality Assurance Mgr/ISO Coordinator

Country of Origin: USA



7122-001 B#5

SH_BOL_90